

REPORT

— OF THE —

NEW YORK METEOROLOGICAL BUREAU,

FOR THE MONTH OF

JUNE, 1891.

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Central Office at Cornell University, Ithaca, New York.

METEOROLOGICAL SUMMARY FOR JUNE, 1891.

The average Atmospheric Pressure (reduced to sea-level and 32 deg. Fah.) for the State of New York during the month of June, was 29.96 inches. The highest barometer was 30.32 inches at Utica, on the 6th; and the lowest was 29.60 inches, at Erie, Penn., on the 18th. The distribution of pressure over the State was quite uniform, but showed a slight decrease over the north-eastern section, and also on Long Island. The average of the mean pressures for June at six stations of the Signal Service differed from the normal value by less than 0.01 inch. The barometric fluctuations during the month were unusually small.

The mean Temperature for the State was 65.0 degrees; the highest general daily mean, 75.8 degrees, occurring on the 15th; and the lowest, 51.1 degrees, on the 4th. The highest local monthly mean was 71.4 degrees, at Central Park, New York City; and the least was 58.6 degrees, at Lyon Mountain, Clinton County. The maximum temperature recorded during the month was 99.3 degrees, at Poughkeepsie, on the 16th; and the minimum was 27.0 degrees, at Keene Valley, on the 5th.—The mean monthly range of temperature for the State was 54 degrees; the greatest range, 69.5 degrees, occurring at Keene Valley, and the least, 37 degrees, at Lyon Mountain. The mean daily range for the State was 22.6 degrees, (the highest value recorded by this Bureau). The greatest range was .48 degrees, at South Canisteo, Steuben County, on the 14th, and at South Kortright, Delaware County, on the 10th and 14th; and the least daily range was 1.0 degree, at New York City, on the 18th.—The mean temperatures for the various sections of the State were as follows: The Western Plateau, 65.1 deg.; the Eastern Plateau, 63.6 deg.; the Northern Plateau, 60.5 deg.; the Coast Region, 68.2 deg.; the Hudson Valley, 66.2 deg.; the Mohawk Valley, 65.2 deg.; the Champlain Valley, 64.8 deg.; the St. Lawrence Valley, 65.3 deg.; the Great Lake Region, 65.7 deg.; the Central Lake Region, 66.2 deg.—The average of the mean temperature at 29 stations possessing records for previous years, was 0.1 degree above the normal value. The greatest general departure from the normal was +1.3 degrees on the Western Plateau; while over the Eastern and Northern Plateaus and the Coast and Hudson Valley Regions, the departures were inappreciable.

The mean Relative Humidity was 73.8 per cent. The mean Dew-Point was 56.7 degrees.

The average precipitation for the State was 2.55 inches of rain; the maximum amounts falling over the south-western portion of the Western Plateau, and over and south-east of the Central Lake Region; while the least general rainfall occurred in the regions of the Coast, the Great Lakes, and the northern Champlain Valley. The greatest local monthly precipitation was 9.21 inches, at Cherry Creek, Chautauqua County; and the least was 0.20 inches, at White Plains, Westchester County.—At the following stations a rainfall of two inches or more occurred within twenty-four hours: On the 16th, at Geneva, 2.25 inches (of which 2.10 inches fell in four hours); at McLean, Tompkins Co., 2.25 inches (falling in one hour); at Cherry Creek, 2.29 inches. On the 18th, 2.21 inches fell at Ithaca; 2.26 inches at Lowville; 2.30 inches at Apalachin, Tioga Co.; 2.28 inches at Newark Valley, Tioga Co.; 3.57 inches at Oxford, Chenango Co.; 3.81 inches at Afton, Chenango Co.; 2.27 inches at Elmira. On the 20th, 2.65 inches at Humphrey (in two hours). On the 21st, 2.81 inches at Avon, Livingston Co.; 3.10 inches at Leroy, Genesee Co. (in two hours and thirty minutes); and on the 24th, 2.10 inches at Cherry Creek. The following high rainfall rates were also reported: On the 1st, 1.12 inches fell in 45 minutes, at Honeymead Brook, Dutchess Co.; on the 11th, 1.40 inches fell in 40 minutes at Malone; and at Keene Valley, Essex Co., 1.25 inches in 55 minutes. On the 16th, 1.30 inches fell at Perry City, Schuyler Co., in one hour and five minutes. A trace of snow was reported from Malone on the 3d.—The average precipitation at 28 stations possessing records for previous years, was 1.16 inches below the normal amount. The rainfall was the least which has been observed for June at New York City and at White Plains, whose records cover respectively 21 and 28 consecutive years. Excesses over the normal amount were reported only from the Central Lakes, the southern portion of the Western Plateau, and the Northern Plateau. The average number of days on which 0.01 inch or more of rain fell was 8.2; the number of rainy days for June, 1889, being 11.4, and for June, 1890, 10. The greatest number of rainy days was 10.1, on the Western Plateau, and the least 6.6, in the St. Lawrence Valley. The average number of clear days was 12.5; of partly cloudy days, 9.6; and of cloudy days, 7.9. The maximum amount of cloud was 54 per cent. (overcast=100 per cent.) in the Northern Champlain Valley; and the minimum amount was 42 per cent. in the Coast Region. The mean cloudiness for the State was 46 per cent.

The prevailing wind direction was from the south-west. The average total wind travel for the month at six stations of the Signal Service, and at Ithaca, was 5120 miles. The travel was less than the average value for the past seven years at the stations of the Great Lakes, but was considerably above this average in the Coast Region. The maximum velocity registered was 35 miles per hour at New York City, on the 27th.

Thunder storms were reported as follows: On the 1st at 2 stations in Dutchess Co.; on the 2d and 3d at 11 stations of the southern tier of counties, the lower Hudson Valley, and Long Island; on the 10th in Cattaraugus and Steuben Counties; on the 11th at 18 stations of the western, central and northern sections of the State; on the 12th at Brentwood, Long Island; on the 15th in Broom and Madison Counties; on the 16th at 21 stations in all sections of the State; on the 17th at 10 stations of the southern tier of counties, the Eastern Plateau, and Long Island; on the 18th and 19th at Arcade, Wyoming Co.; on the 20th in Genesee and Steuben Counties; on the 21st, 22nd and 23d at 12 stations of the central and southern counties and Long Island; on the 26th at 4 stations of the Mohawk Valley and

southern tier; and on the 30th at Humphrey, Cattaraugus Co. Thunder storms occurred most frequently in the central and western portions of the southern tier of counties, near New York City, and on Long Island. The least number were reported from the Eastern Plateau, and over the northern portion of the State.

Frost was reported; on the 1st from Malone; on the 5th over the northern section of the State, and the Eastern and Western Plateaus, in some cases causing serious damage to tender vegetation and fruits; and on the 8th, 9th, 13th, 28th and 29th, light frosts occurred at scattered stations.

Violent hail storms were reported on the 1st, in Northern Dutchess County; and on the 2nd, in Rensselaer and Washington Counties, and the central Mohawk Valley. On the 21st hail was reported at Brookfield, Madison County.

Solar Halos were reported on the 4th, 5th, 6th and 30th.

The Weather Forecasts for June were reported to have been verified as follows: For Weather, 81.5 per cent. were fulfilled; for Temperature, 84.3 per cent.; for weather and temperature combined, 82.6 per cent.

The data for this summary have been obtained from the records of 60 Voluntary Observers, 6 Signal Service Stations, 12 Military Posts, 31 Special Rainfall Observers, and 24 Display Stations, reporting this month to the Central Office of the Meteorological Bureau, at Ithaca, N. Y.

The weather of New York during June, was influenced by five anticyclones, and by eight areas of low pressure; the number of cyclonic movements over the United States during the month being about the average observed for June in previous years. Five of the depressions passed north of the State; the three remaining storms, although dissipating over the Central United States, affected, to an appreciable extent, the wind circulation in the eastern region. The cyclones diminished in intensity while moving eastward, and generally had little energy when in the vicinity of this State; but within the depressions severe local rain and thunder storms were developed; giving a very unusual number of excessive daily or hourly rain-falls. The northerly course of the storm tracks tended to give abnormally high temperatures, as is shown by the extreme heat which occurred in the middle of the month; but the mean temperature for June was but little above the normal value, owing mainly to the influence of the first anticyclone of the month, which gave unseasonably cold weather from the 3d until the 7th. Of the four remaining high pressure areas, three passed over portions of New York; and one developing over the Atlantic, extended inland south-east of the State.

The drought of May, which had injured crop prospects in Central and Western New York and the lower Hudson Valley, was generally broken by the heavy rains of June; but as these were, for the most part, local in character, the ground remained parched in many places, and especially over large areas of the Great Lake Region. The humidity of the air was considerably below the average value for June; and the deposition of dew was noticeably small.

The first depression of June passed north of New York on the 1st, and thence spread southward as a trough of low pressure, giving southerly winds, high temperatures, and a scattering rainfall. After its passage, north-westerly winds set in over the northern section, from an anticline over the Upper Lake Region, lowering the temperature more than 20 degrees on the 2nd; while southerly winds in the Coast Region gave warmer weather until the 3d, when the mean daily temperature at New York City was nearly 35 degrees higher than that of the stations in the lower St. Lawrence Valley. On the 4th and 5th the anticyclone referred to moved eastward over New York, giving cold northerly winds, and the minimum temperatures of the month; severe frosts occurring on these dates over the northern region and the plateaus. Cloudy weather and scattering rains on the 3d and 4th, were due to easterly winds flowing toward an area of low pressure which dissipated in the Central States on the 4th. The first antilonic area, moving very slowly, passed over this State on the 7th, and thence to the Coast, where it remained until the 11th, spreading over the Southern Atlantic States and Coast, giving continuously rising temperatures over this State, with fair weather excepting on the 7th, when light rains accompanied the easterly winds blowing towards an extensive "low" central over the Mississippi Valley. Moderate rains with thunder showers occurred on the 11th in all sections excepting the Coast and Hudson Valley, as a depression passed along the Canadian border and north of this State. The weather cleared and became slightly cooler on the 13th, as a broad anticyclone, of moderate intensity, moved from the Mississippi Valley over the Eastern States. This "high" passed down the Southern Coast on the three days following, while on the 15th and 16th an area of low pressure moved slowly eastward north of the State, accompanied by severe thunder storms in all sections; and, acting with the "high" in the south, gave excessively high temperatures. Much cooler weather followed on the 17th and 18th, due to the northerly winds in the rear of the third anticline of the month, which developed, apparently, over the Atlantic, and moving to the Canadian Coast, gave north-easterly winds toward a broad area of low pressure south of the Upper Lakes, general and heavy rains occurring over the State on the 18th. The weather remained overcast on the 19th and 20th; and on the 21st and 22nd, general rains again occurred, as a depression which was central over Illinois on the 20th, spread northward, and united with a second depression on the northern border; the trough-like "low" passing over Northern New York and Canada on the 22d and 23d. Fair weather, with nearly normal temperatures, prevailed from this time until the close of the month, owing mainly to the influence of two areas of high pressure, the first of which passed from the Central States to Western New York on the 23d-24th, when it became merged in a second anticyclone which moved in a south-easterly direction from the Great Lake Region on the 25th, remaining over the Eastern States until the 28th, when it passed to the Northern Coast. A depression over the Atlantic gave brisk westerly winds from the 25th to the 27th, in the western and central portions of the State; but at a few eastern stations thunder storms occurred on the 26th. The last depression of June passed north of New York on the 30th, and was accompanied by cloudy weather, and light rains at a few scattered stations.

METEOROLOGICAL DATA FOR JUNE—1891.

METEOROLOGICAL DATA FOR JUNE—CONTINUED.

LOCATION OF STATIONS.		BAROMETER.				HUMIDITY.		TEMPERATURE—(In Degrees Fah.)												SKY.		PRECIPITATION—(Inches.)			WIND.			
STATION.	COUNTY.	Mean	Highest	Date	Lowest	Date	Monthly Range	Mean	Highest	Date	Lowest	Date	Monthly Range	Mean	Greatest Daily Range	Date	Least Daily Range	Date	No. of Clear Days	No. of Partly Cloudy Days.	No. of Cloudy Days.	Total for the Month.	Greatest Daily	Average Daily	Total Snow Fall	Prevailing Direction.		
<i>Coast Region cont'd.</i>																												
Brentwood	Suffolk	29.92	30.19	6	29.71	28	0.48	75.7	57.8	*66.9	93.0	26	45.0	48.0	23.9	38.0	9	9.0	18	18	9	3	1.25	.50	.042	N. W.		
Setauket	"							58.9	65.9	93.0	16	49.0	44.0	18.4	27.0	14	8.0	21	10	9	9	1.84	.63	.061				
David's Island	Westchester							*67.7	95.0	b	48.0	8	47.0	20.6	31.0	m	p	2.0	18				2.05	1.24	.068	S. S.		
Fort Schuyler	"							*64.8	90.0	16	51.0	n	39.0	18.6	28.0								1.24	0.48	.041	S. W.		
White Plains	"							68.0														0.20	0.11	.007				
<i>Hudson Valley</i>																												
Albany	Albany	29.95	30.27	6	29.73	22	0.54	74.0	58.4	*66.2	99.3	16	38.5	8	54.8	21.8	48.0	18	2.0	18	8.0	13.5	8.5	9.1	2.71	1.79	.090	
Watervliet Arsenal	"								*68.3	95.0	16	42.0	5	53.0	20.7	34.0	25	2.0	18	6	17	7	12	2.65	1.79	.088	S.	
Honeymead Brook	Dutchess																						9	3.30	1.00	N. W.		
Poughkeepsie	"																						10	3.90	1.12	S. W.		
West Point	Orange																						9	2.14	0.63	.071		
Boyds' Corners	Putnam																						6	2.46	0.76	.082		
Carmel	Putnam																						11	1.81	0.71	.060		
S. E. Reservoir	"																							1.83	.061			
Marlborough	Ulster																							2.30	.077			
Minnewaska	"																											
Rondout	"																											
Peekskill	Westchester																											
<i>Mohawk Valley</i>																												
Rome	Oneida																											
Utica	"	29.99	30.32	6	29.76	22	0.66																					
<i>Champlain Valley</i>																												
Plattsburgh	Clinton	29.92	30.24	5	29.66	1	0.58																					
Plattsburgh Barracks	"																											
¶Saratoga	Saratoga																											
Queensbury	Warren																											
<i>St. Lawrence Valley</i>																												
Malone	Franklin																											
Madison Barracks	Jefferson																											
Watertown	"																											
Canton	St. Lawrence																											
North Hammond	"																											
Ogdensburg	"																											
Potsdam	"																											
<i>Great Lakes</i>																												
¶Dunkirk	Chautauqua																											
Buffalo	Erie	29.96	30.27	5	29.62	19	0.65																					
Fort Porter	"																											
Rochester	Monroe	29.97	30.31	5	29.68	18	0.63	67.0	55.2	*66.4	94.0	15	39.0	5	55.0	17.4	35.0	8	6.0	21	11	10	9	1.56	1.03	.052	N. E.	
Fort Niagara	Niagara																											
Hess Road Station	"	29.92	30.32	5	29.65	19	0.67	80.1	59.2	64.6	90.0	b	32.0	5	58.0	25.3	38.0	10	9.0	18	16	4	10	1.19	0.47	.040	S. W.	
Baldwinsville	Onondaga																											
Syracuse	"	29.96	30.28	6	29.65	18	0.63	67.3	56.9	66.9													6	0.66	0.23	.022	E.	
Albion	Orleans																											
Oswego	Oswego	29.96	30.29	5	29.66	18	0.60	70.1	52.4	*63.0	87.0	15	42.0	6	45.0	15.5	28.0	14	8.0	ad	14	6	10	1.58	0.64	.053	S. W.	
Palermo	"																						7	1.03	0.30	.034		
Lyons	Wayne																						6	1.19	0.45	.040	N. W.	

METEOROLOGICAL DATA FOR JUNE—CONTINUED.

LOCATION OF STATIONS.		BAROMETER.				HUMIDITY.		TEMPERATURE—(In Degrees Fah.)												SKY.		PRECIPITATION—(Inches.)				WIND.			
STATION.	COUNTY.	Mean	Highest	Date	Lowest	Date	Monthly Range.	Mean Relative	Dew Point, (degrees)	Mean	Highest	Date	Lowest	Date	Monthly Range.	Mean Daily Range.	Greatest Daily Range	Date	Least Daily Range.	Date	No. of Clear Days	No. of Partly Cloudy Days.	No. of Cloudy Days.	No. of Days on which 0.01 or more in. fell.	Total Snow Fall	Average Daily	Prevailing Direction.		
<i>Great Lakes cont'd.</i>																													
Palmyra	Wayne	29.96	30.26	25	29.60	18	0.66	71.0	57.0	68.2	86.0	15	44.0	5	42.0	14.0	29.0	9	6.0	18	11	5	14	7	1.63	0.48	N. E.		
Erie, Pennsylvania	Erie									*66.0														0.70	.054	.041	W.		
<i>Central Lakes.</i>										66.2	98.0	15	35.0	5	56.5	23.4	44.0	14	7.0	18	12.0	10.0	8.0	7.2	3.84	2.25	.128		
Fleming	Cayuga									66.4	91.0	15	38.0	5	53.0	21.5	33.0	3	10.0	21									
Geneva	Ontario									66.5	98.0	15	35.0	5	63.0	26.1	44.0	14	12.0	2									S.
Romulus	Seneca									78.6	90.0	b	35.0	5	55.0	23.9	38.0	9	7.0	18									N. W.
Hammondsport	Steuben									58.0	64.6						23.9	38.0	14	8.0	21	12	10	7	3.76	2.25	.125		
Ithaca	Tompkins	29.94	30.26	6	29.69	18	0.57	70.1	56.7	67.2	92.0	15	37.0	5	55.0	22.3	38.5	14	8.0	21									S. E.
Mean		29.96	30.32	6	29.60	18	0.57	73.8	56.7	65.0	99.3	16	27.0	5	54.0	22.6	48.0	ag	1.0	18	12.5	9.6	8.2	8.2	2.54	3.57	.085	S. W.	

(a) 28, 29; (b) 15, 16; (c) 2, 18; (d) 10, 15; (e) 10, 14; (f) 4, 21; (g) 5, 6; (h) 4, 5; (j) 17, 26; (k) 19, 30; (l) 8, 25; (m) 14, 25; (n) 7, 8; (p) 8, 25; (r) 9, 10; (s) 3, 4, 5, 6; (t) 5, 28; (u) 24, 26; (v) 26, 28; (w) 2, 3, 21, 22; (ab) 15, 17; (ac) 10, 16, 17; (ad) 21, 27; (ae) 1, 8; (af) 2, 21; (ag) 10, 14, 18.

* The means are derived from the maximum and minimum temperatures. † Temperature record from Draper Thermograph. ‡ Reports received too late to be used in computing the means.

DAILY AND MONTHLY MEAN TEMPERATURES FOR JUNE, 1891.

STATION.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Month. Mean.	
Western Plateau	69.7	66.4	61.0	47.7	49.8	52.7	55.5	61.5	67.7	71.9	71.6	62.0	64.0	71.7	76.5	74.7	64.4	61.6	65.0	63.1	68.4	69.8	66.7	65.4	71.2	67.3	57.3	60.5	65.0	70.1	65.1		
Alfred Centre	70.0	67.2	60.6	40.5	42.8	51.0	52.5	60.0	68.2	73.8	69.0	60.0	65.5	71.8	76.8	71.8	70.0	60.6	64.8	68.2	66.0	65.5	64.2	64.2	70.0	65.2	53.0	57.5	62.5	70.2	63.4		
Angelica																																	
Humphrey	70.0	68.8	66.8	52.5	52.5	50.0	56.2	62.2	68.8	70.8	70.2	62.5	65.3	73.0	77.5	75.2	72.8	64.0	66.2	68.3	67.5	69.8	66.8	67.8	71.0	68.8	58.5	62.0	65.5	71.8	66.1		
Arkwright																																	
Jamestown																																	
Sherman	67.0	66.5	62.0	49.5	50.8	52.8	53.2	62.1	66.4	68.8	63.4	59.0	65.2	71.8	72.2	72.0	69.8	65.5	69.1	67.5	67.8	65.2	62.5	65.0	66.1	61.0	56.2	57.2	64.2	67.2	63.6		
Elmira	73.5	70.8	64.2	51.0	53.5	56.0	58.2	62.0	66.5	66.8	73.8	68.5	69.8	77.2	84.2	75.0	73.0	63.0	66.5	71.5	70.5	73.8	72.0	70.2	76.5	71.2	60.8	64.0	68.5	71.2	68.1		
Alabama	72.0	61.0	53.0	50.0	52.5	54.0	55.5	66.0	72.5	74.0	72.5	61.5	64.5	68.5	75.5	76.0	65.0	70.5	68.0	68.5	67.5	64.5	70.0	56.0	55.5	62.5	69.0	72.0	64.7				
LeRoy	72.2	62.8	54.5	46.2	52.2	55.8	58.5	62.8	68.2	75.2	75.0	62.5	65.5	73.0	78.0	75.5	71.0	61.5	65.5	71.2	71.5	73.8	64.8	67.2	75.2	71.2	57.8	63.0	66.8	72.8	66.4		
*Mount Morris	70.2	65.7	65.0	50.7	48.2	52.5	62.0	60.5	67.5	73.2	76.0	67.0	66.0	71.2	78.0	79.5	73.0	61.0	65.0	72.5	74.0	76.7	72.2	65.7	69.7	73.2	63.5	59.2	63.0	68.2	77.0	67.0	
Lockport	71.0	66.0	53.0	46.5	51.0	54.0	59.0	61.5	65.5	71.0	71.5	61.5	52.5	66.5	74.0	78.0	67.5	59.0	60.0	66.5	63.5	68.0	67.0	67.0	71.5	67.5	60.0	65.5	66.5	70.0	64.0		
Wedgewood																																	
Addison	67.8	69.0	66.9	50.8	51.2	52.5	54.5	57.4	67.8	74.2	77.8	62.4	63.5	73.0	76.4	71.0	71.8	62.8	65.5	69.8	69.8	72.5	69.0	65.5	72.0	68.2	61.0	60.0	61.0	66.6	65.7		
South Canisteo	66.2	68.2	64.0	47.2	46.2	49.2	49.5	56.2	64.8	72.5	69.2	60.8	62.2	70.8	73.0	71.2	70.5	61.5	63.5	68.5	67.8	66.8	62.0	69.5	68.0	52.5	56.5	61.2	68.8	63.2			
Arcade	67.2	65.2	61.7	43.9	48.2	51.9	54.1	64.2	68.6	70.0	67.9	56.6	62.5	70.0	75.8	76.7	70.4	62.5	67.2	67.7	68.1	67.6	63.1	62.7	70.2	67.4	54.2	59.5	66.7	71.7	64.0		
Italy Hill	68.9	65.9	59.7	43.6	48.9	52.4	55.2	62.5	67.2	72.6	72.4	61.8	66.0	73.4	76.9	74.6	68.0	58.4	61.7	66.2	66.0	69.0	64.9	63.6	72.5	70.4	54.8	58.9	64.8	71.0	64.6		
Eastern Plateau	67.2	66.6	65.4	50.5	50.5	51.1	54.0	57.3	61.2	68.0	71.2	63.1	63.8	79.0	73.1	72.5	72.0	56.0	58.4	66.2	62.4	68.9	68.0	62.3	69.8	66.8	56.6	60.7	64.2	67.6	63.6		
Binghamton	70.2	67.2	72.5	49.5	53.6	53.0	56.5	59.0	62.2	71.0	74.0	64.0	64.5	69.0	77.0	73.5	75.2	57.0	61.0	68.8	68.8	70.5	68.8	67.0	64.5	71.2	60.2	61.5	67.0	65.7			
Oxford	66.0	66.0	64.5	47.7	49.5	49.5	53.5	56.0	57.0	65.5	69.0	59.5	61.5	65.0	71.0	71.2	69.2	57.0	56.5	64.5	66.0	67.0	65.5	60.5	70.5	66.2	69.0	70.5	62.0	62.0			
South Kortright	63.0	65.0	68.5	50.0	50.5	51.0	57.0	52.0	57.5	64.5	65.0	57.5	54.0	67.5	67.0	69.5	60.5	58.5	67.5	68.0	69.5	61.0	70.5	70.5	52.5	63.0	60.0	62.0	66.0	59.9			
Brookfield	65.5	63.5	62.2	47.0	47.8	52.8	55.5	57.0	61.2	68.8	70.8	60.5	62.5	69.5	70.5	69.0	72.0	55.0	59.2	68.8	67.5	69.5	63.8	58.8	71.5	67.0	52.5	63.2	67.0	69.8	63.0		
*Pompey																																	
Middletown	68.5	70.0	69.0	58.0	57.0	53.5	54.0	62.5	62.0	69.0	73.5	71.5	69.0	74.0	78.0	74.0	70.5	56.5	64.0	65.0	70.5	72.5	70.0	67.5	62.5	66.5	68.0	68.5	65.0	77.0	67.0		
†Port Jervis	65.5	69.5	72.0	59.2	56.0	52.0	52.5	53.0	61.0	68.0	72.0	71.0	66.0	69.5	76.0	76.2	75.0	55.0	64.0	66.0	68.5	70.5	70.5	66.0	62.5	65.5	66.0	66.4	65.5				
Port Jervis	64.7	67.2	70.5	60.0	56.1	51.7	52.9	57.5	60.8	64.2	69.9	69.5	65.3	67.3	74.1	76.3	72.8	54.3	52.4	68.2	70.6	66.3	68.7	73.7	63.5	65.5	66.0	66.4	64.9				
Cooperstown	62.0	63.8	65.5	48.0	52.0	52.5	54.8	58.2	61.5	66.2	72.0	61.5	66.5	68.8	72.2	72.2	70.8	54.0	59.2	66.0	67.5	68.8	67.0	62.0	63.0	66.2	68.2	63.6					
Quaker Street	68.5	68.0	56.0	47.5	51.0	51.5	54.0	58.0	62.0	65.0	68.0	63.0	62.0	67.5	69.5	73.0	69.0	53.0	55.5	63.0	66.5	65.5	67.5	58.0	68.0	65.5	63.0	61.0	65.5				
Hyndsville	67.2	66.0	64.0	50.2	51.2	52.2	55.2	61.0	64.0	70.0	74.0	64.5	64.5	68.8	73.8	73.0	71.5	54.2	57.2	67.5	67.8	68.0	69.2	63.5	74.0	71.0	56.2	66.2	66.5	69.0	67.0		
Middleburgh	68.7	66.2	61.5	56.5	45.7	60.7	61.2	65.5	70.0	73.0	65.5	75.7	72.2	78.0	74.2	72.2	54.7	60.2	69.0	69.7	69.5	71.2	62.2	74.5	70.5	60.0	66.5	68.7	70.0	66.4			
Perry City	67.5	64.6	58.8	47.0	46.2	48.0	51.0	59.8	66.4	75.2	72.2	60.2	60.2	69.0	73.2	68.5	69.5	59.5	68.5	70.5	66.5	66.5	72.0	67.8	53.5	64.2	61.5	67.0	63.0				
*Apalachin	64.5	67.5	65.5	46.5	45.5	42.0	48.0	50.0	52.0	58.0	69.0	57.0	57.5	65.5	71.0	74.0	71.5	54.0	57.0	61.0	68.5	68.0	59.0	51.5	53.5	60.0	49.5	41.0	50.0	56.5	57.8		
Waverly	70.5	68.2	70.8	50.0	51.1	52.5	53.2	57.0	63.0	72.8	73.2	64.6	65.8	67.4	77.4	73.0	76.2	58.0	62.8	68.5	70.0	72.0	69.5	66.0	73.4	71.6	58.8	60.0	66.5	72.0	66.0		
Northern Plateau	66.6	59.0	50.1	44.8	47.9	49.6	55.6	58.6	62.4	68.0	67.7	59.7	60.9	66.5	70.2	73.2	63.2	56.2	58.1	61.2	64.8	66.4	62.6	59.3	68.9	64.6	53.7	58.0	60.6	65.2	60.5		
*Lyon Mountain	66.5	55.8	42.9	41.5	43.8	48.5	53.5	61.9	64.5	68.6	67.2	58.5	60.6	72.5	71.5	58.8	55.6	58.7	63.0	65.2	64.3	58.5	51.7	63.8	58.1	51.6	56.7	52.0	62.4	58.6			
Keene Valley	65.0	57.3	49.0	42.5	52.0	45.0	56.5	58.5	59.0	65.0	65.5	62.5	59.5	65.0	68.0	58.0	55.0	59.5	52.0	57.0	65.0	68.5	71.0	52.5	52.0	57.0	61.0	59.4					
Ampersand																																	
Constableville	64.2	61.2	53.2	47.5	46.5	47.8	54.0	53.8	61.5	70.0	70.5	57.8	61.2	66.5	67.0	73.0	66.5	55.8	57.2	62.0	66.0	67.8	67.2	57.0	71.8	65.5	52.8	61.0	64.8	68.0	59.8		
Lowville	68.5	59.0	52.0	46.0	49.0	52.5	56.5	59.0	64.5	69.0	70.5	61.0	63.0	67.0	72.0	77.5	64.0	58.5	58.5	64.0	68.0	69.0	60.0	66.0	55.0	59.0	63.0	66.0	62.4				
Number Four	68.5	60.7	53.0	46.7	47.2	52.5	58.5	60.2	64.5	68.7	65.7	58.5	59.2	66.7	71.0	72.0	66.5	55.9	58.5	64.0	66.7	67.6	59.5	58.2</									

DAILY AND MONTHLY MEAN TEMPERATURES FOR JUNE—CONTINUED.

8

STATIONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Month Mean.
<i>Hudson Valley continued</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
*Watervliet Arsenal.	68.5	70.5	70.3	52.0	55.5	54.3	55.0	61.3	65.5	69.5	72.3	69.0	66.3	72.8	75.8	78.5	69.3	53.5	58.9	68.0	66.3	69.5	73.0	63.8	69.9	74.5	57.0	65.8	63.5	66.5	.	
Honeymead Brook.	68.5	70.5	71.3	59.0	54.6	52.0	57.1	59.8	63.4	68.8	74.9	71.6	65.0	70.1	80.2	80.1	74.6	64.2	56.8	67.4	70.4	72.8	74.4	71.3	66.8	74.6	68.0	60.2	64.2	67.2	65.9	
*Poughkeepsie.	67.0	73.1	71.3	59.0	54.6	52.0	57.1	59.8	63.4	68.8	74.9	71.6	65.0	70.1	80.2	80.1	74.6	64.2	56.8	67.4	70.4	72.8	74.4	71.3	66.8	74.6	68.0	60.2	64.2	67.3		
*West Point.	55.0	57.0	58.0	57.0	46.5	46.5	50.0	49.0	51.0	54.0	58.0	63.0	57.5	55.0	61.0	67.5	79.0	74.0	49.0	54.0	59.5	57.0	63.5	62.0	53.5	67.5	52.5	55.0	60.0	60.0	57.8	
Boyd's Corners.	70.5	73.8	75.5	58.0	58.8	59.5	58.0	65.8	70.5	70.2	73.8	73.0	70.5	74.5	79.5	83.5	74.0	58.5	61.0	70.0	68.2	75.0	77.0	68.8	75.2	78.5	65.5	66.0	70.2	72.0	69.8	
*Carmel.	71.0	71.0	72.5	57.5	54.0	53.0	58.0	60.5	62.5	68.0	70.0	73.0	74.5	77.0	81.0	86.0	78.5	57.0	57.7	69.0	66.5	74.0	73.0	66.0	72.5	77.5	63.0	62.5	60.0	66.5	67.8	
Marlborough.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
†Minnewaska.	72.8	67.5	66.2	47.8	53.2	50.8	54.5	63.5	63.8	69.0	72.2	68.0	68.2	72.2	78.5	77.8	66.8	48.8	53.5	62.2	62.2	68.6	68.0	61.5	71.8	71.8	56.5	61.5	64.5	68.5	.	64.2
Minnewaska.	66.0	69.4	65.2	48.1	52.7	52.8	55.3	62.0	66.0	67.8	70.9	68.3	66.6	71.5	76.4	78.9	71.0	50.1	.	61.4	67.0	68.6	61.9	70.2	72.5	56.1	60.5	63.1	64.6	.	64.5	
Rondout.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
†Rondout.	69.2	70.8	69.0	53.2	59.4	56.4	57.2	63.7	70.0	72.1	77.0	72.1	70.4	74.7	79.7	80.1	75.2	56.6	58.2	66.9	67.0	70.6	77.0	70.0	72.0	77.5	65.0	68.6
Peekskill.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Mohawk Valley</i>	69.5	66.5	67.0	53.5	52.5	51.5	58.5	59.9	65.0	71.0	74.0	65.5	64.5	67.5	78.0	70.0	65.5	62.5	59.0	65.5	69.0	71.0	69.0	64.5	67.5	73.0	60.0	59.5	65.5	71.0	65.2	
Rome.	69.5	66.5	67.0	53.5	52.5	51.5	58.5	59.0	65.0	71.0	74.0	65.5	64.5	67.5	78.0	70.0	65.5	62.5	59.0	65.5	69.0	71.0	69.0	64.5	67.5	73.0	60.0	59.5	65.5	71.0	65.2	
*Utica.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Champlain Valley</i>	68.7	60.1	52.7	49.6	51.2	55.4	59.9	64.5	65.1	66.8	68.6	69.2	66.5	70.4	76.2	76.4	67.4	60.1	61.7	66.9	69.0	69.1	60.6	60.6	66.8	69.7	59.8	65.8	66.5	68.7	.	64.8
Plattsburgh.	69.2	56.8	45.5	47.0	49.1	55.5	61.9	66.7	64.8	66.1	67.5	68.1	65.8	74.6	77.4	74.6	63.9	60.3	61.9	68.5	69.6	69.5	58.0	68.8	63.4	56.2	67.0	66.3	69.2	.	64.0	
*Plattsburgh Barracks.	67.5	57.0	51.5	50.0	50.0	54.0	59.0	63.5	64.0	65.0	67.0	69.0	65.5	66.5	70.5	80.0	67.0	61.0	62.0	66.0	68.5	68.5	71.0	60.0	63.5	72.0	61.5	63.0	66.0	67.5	.	64.1
†Saratoga.	69.3	66.5	61.0	51.7	54.4	56.8	58.8	63.3	66.6	69.2	71.3	70.6	68.2	70.0	75.6	74.7	71.3	59.1	61.1	66.1	68.9	69.3	71.2	63.7	68.0	73.6	61.8	67.3	69.5	.	66.2	
Queensbury.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>St. Lawrence Valley</i>	70.4	57.0	47.2	49.0	51.3	54.6	60.9	64.0	66.6	74.4	73.5	67.7	66.2	72.1	76.6	76.0	65.8	63.5	66.2	68.0	70.8	70.2	65.2	64.1	72.5	65.8	61.1	63.8	66.2	68.3	.	65.3
Malone.	72.2	55.2	42.8	45.0	49.2	54.8	60.5	65.0	65.0	73.0	72.5	63.8	66.0	71.8	76.8	74.0	60.8	62.0	65.0	68.8	70.2	68.5	60.0	58.2	72.0	61.2	58.5	64.0	65.2	65.8	.	63.6
*Madison Barracks.	69.5	61.5	55.0	51.5	50.5	52.0	60.0	68.0	68.0	74.5	73.0	60.0	74.5	74.5	78.0	72.0	64.0	63.5	68.0	71.0	70.0	68.5	66.0	71.0	63.5	60.5	63.0	66.0	65.8	.	65.8	
Watertown.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Canton.	70.9	55.0	45.1	47.8	49.7	54.2	60.3	64.0	66.5	73.7	74.0	64.5	65.8	71.7	78.2	76.3	64.0	63.8	68.0	69.7	70.8	71.0	65.0	63.2	73.0	64.9	60.0	63.3	65.0	67.6	.	64.9
Massena.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
North Hammond.	68.5	57.8	49.5	49.0	51.2	55.0	60.5	58.5	63.2	75.5	76.0	72.2	69.5	74.5	74.8	68.2	64.0	65.0	67.5	71.0	70.5	69.5	67.8	75.2	66.8	61.0	65.8	68.8	73.8	.	66.0	
Ogdensburg.	69.6	.	46.8	51.8	54.1	.	.	64.2	67.5	.	69.1	67.5	76.4	.	67.9	63.5	69.0	66.5	71.2	70.2	66.0	.	74.8	68.0	64.4	63.8	69.0	.	66.2			
Potsdam.	72.0	55.5	44.0	49.0	53.2	57.0	63.2	64.5	69.2	75.5	76.2	65.8	68.0	72.2	79.2	76.8	62.0	63.5	66.5	67.8	70.5	70.8	62.2	65.2	73.8	63.0	59.2	65.2	66.2	68.5	.	65.5
<i>Great Lakes</i>	68.5	62.3	56.9	49.5	51.4	54.8	59.0	62.6	67.4	74.0	73.2	62.7	64.8	71.6	76.2	77.2	70.0	59.6	63.2	70.4	69.7	70.4	69.7	66.1	72.1	69.6	60.9	63.9	67.8	70.2	.	65.6
Dunkirk.	70.7	68.0	62.8	50.1	51.4	59.1	61.2	62.5	67.8	75.3	74.2	64.6	64.5	71.9	77.4	79.8	72.3	64.2	63.1	68.9	65.8	73.4	70.0	66.8	72.9	61.9	63.6	67.8	72.9	.	67.3	
Buffalo.	64.0	66.0	60.0	52.0	52.0	55.0	61.0	64.0	67.0	74.0	69.0	63.0	64.0	69.0	72.0	73.0	62.0	65.0	72.0	70.0	67.0	69.0	68.0	73.0	62.0	60.0	67.0	68.0	.	65.5		
*Fort Porter.	64.0	65.5	64.0	48.0	55.5	57.0	58.0	66.5	69.0	74.5	64.0	60.5	69.0	71.5	74.0	73.5	73.5	53.0	65.0	72.0	69.0	67.5	70.5	69.0	70.0	66.0	62.0	66.0	69.5	70.5	.	66.0
Brockport.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
*Rochester.	70.0	58.0	52.0	50.0	50.0	53.0	61.0	64.0	66.0	76.0	77.0	65.0	66.0	70.0	78.0	80.0	70.0	60.0	64.0	72.0	73.0	70.0	68.0	75.0	73.0	64.0	62.0	68.0	68.0	.	66.4	
Fort Niagara.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
†Hess Road Station.	71.0	57.2	50.2	48.7	51.0	53.7	57.0	62.2	69.5	73.2	75.0	60.0	62.0	69.5	79.0	78.0	64.5	60.0	59.2	66.0	65.2	67.0	65.0	68.7	73.7	69.0	60.5	63.5	67.0	.	64.6	
†Hess Road Station.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Baldwinsville.	67.8	63.2	57.0	51.0	51.5	54.5	60.5	62.0	67.8	75.1	75.5	62.8	65.5	72.8	76.2	80.2	73.5	61.8	62.2	70.5	71.8	69.5	64.8	74.5	70.5	59.2	63.8	67.0	71.5	.	64.0	
Syracuse.	72.8	65.7	59.1	52.3	52.4	55.5	60.9	63.2	69.2	75.6	73.8	62.1	65.8	73.0	77.4	74.5	74.8	60.4	63.9	72.0	70.9	71.9	.	73.2	69.3	58.7	63.8	69.8	72.3	.	66.9	
Albion.	55.4	54.2	52.9	45.8	51.0	51.5	57.9	66.2	60.2	69.8	72.8	63.2	63.2	72.0	77.0	74.8	64.2	49.2	60.2	68.5	66.8	70.2	68.8	53.8	71.0	68.5	68.0	75.1	67.8	.	63.7	
*Oswego.	68.0	56.0	52.0	48.0	50.0	52.0	56.0	58.0	66.0	71.0	74.0	58.0	60.0	69.0	74.0	78.0	66.0	60.0	62.0	68.0	72.0	6										

DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1891—(INCHES.)

STATIONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Western Plateau . . . . .	.03	.05	.07	T.	.03	T.	T.	.03	T.	.06	.20	.04	0.00	0.00	.25	.28	.41	.45	.23	.34	.64	.10	.02	.12	0.00	.03	0.00	0.00	.08	0.00	3.29
Alfred Centre		T.	.04	.03				.12	T.	.08	.02				T.	.55	.15	.15	.04	.95	.09					.24					2.46	
Angelica . . . . .		.20	.09																												
Bolivar																																
Humphrey																															2.44	
Limestone																															5.95	
																															3.36	
Cherry Creek . . . . .	.42																														
Jamestown																																
Sherman																															1.88	
Elmira																															4.57	
Pine City																																
Akron																															0.79	
Alabama	T.	T.	.03	T.																											2.12	
Batavia																															2.51	
LeRoy																															4.96	
Avon . . . . .	.04	.03																													3.67
Mt. Morris . . . . .		.12	.12	.05																											2.04
Scottsville																															2.10	
Lockport . . . . .		.08	.12	.05																											1.40
Victor																																
Wedgewood																															2.43	
Addison																															2.05	
Blood's Depot																															4.13	
South Canisteo . . . . .	.35	.08	.10																												2.68
Arcade		T.	.11	.03																											4.69	
Attica																															4.66	
Eastern Plateau . . . . .	.03	.09	.14	.08	T.	T.	.03	0.00	0.00	0.00	.18	.22	T.	.05	.03	.30	.35	.32	.05	.02	.09	.26	.02	.01	T.	0.00	0.00	0.00	0.00	3.44	
Binghamton . . . . .		.13	.05	.48	T.																										3.55
Chenango Forks . . . . .	.12																														4.55
Afton																															4.89	
Oxford		T.	T.	.24	.14																										5.44	
Deposit																															2.00	
South Kortright																															3.04	
Brookfield		T.	.01	.08																											2.34	
Apulia																																
Middletown																															1.53	
Port Jervis																															1.39	
Warwick																																
Cooperstown . . . . .	.10	.10																													2.33
Quaker Street . . . . .		.18	.14																												1.98
Hyndsville . . . . .		.15	.56	.19																											2.34
Middleburgh																															2.72	
																															2.50	
Perry City		T.	.05																													4.13
Liberty . . . . .			.15																												3.41
Newark Valley . . . . .			.07	.20																											6.11
Apalachin																															4.09	
Waverly																															4.07	
McLean																															6.35	
Northern Plateau . . . . .	.01	.14	.16	.04	0.00	0.00	0.00	0.00	0.00	.47	.03	0.00	0.00	0.00	.05	.30	.72	.02	.14	.18	.45	.04	.02	T.	0.00	0.00	0.00	0.00	2.76		
Lyon Mountain																															4.03	
West Chazy . . . . .		.08																													1.56
Au Sable Forks																															1.40	
Keene Valley		T.																													2.71	
Ampersand																																
Constableville																															3.23	
Lowville																															4.10	

DAILY AND MONTHLY PRECIPITATION FOR JUNE—CONTINUED.

DAILY AND MONTHLY PRECIPITATION FOR JUNE—CONTINUED.

STATIONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
St. L. Valley, cont'd.	
Norwood.	*	†	.67	.	.	.	.	.	.	.	2.01		
Ogdensburg.		
Potsdam		
Great Lakes	T.	.14	.06	.03	0.00	T.	T.	0.00	0.00	0.00	.22	.02	0.00	0.00	.08	.11	.14	.08	.04	.39	.16	0.00	.02	0.00	T.	0.00	0.00	T.	.01	.45		
Dunkirk	.	.	.11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.41
Buffalo	.	.11	.03	.09	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.64
Fort Porter07		
Adams Centre	.	.	.17	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.32
||Chittenango		
Brockport		
Rochester	.	.08	.01	.01	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.56
Fort Niagara	.	.47	.15	.04	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.19
Hess Road Station	.	.11	.10	.09	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2.17
Baldwinsville	.	.04	T.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.66
Syracuse	.	.05	.06	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.46
Albion	T.	.37	T.	.19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.56
||Lyndonville	.	.1818	
Demster	.	.25	.10	.01	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.97
Oswego	.	.23	.12	.01	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.58
Palermo	.	.1003	
Sand Bank	.	*	†	.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.94
Lyons	.	.11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.19
Palmyra	.	.13	T.	T.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.63
Erie, Pennsylvania	.	.03	.14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.22
Central Lakes	0.00	.09	.24	T.	0.00	0.00	.02	0.00	0.00	0.00	.52	.08	0.00	0.00	0.00	1.15	.10	.86	T.	T.	.25	.54	0.00	0.00	0.00	0.00	0.00	0.00	3.84			
Fleming	.	.	.40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.33
Geneva	.	.34	.26	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.76
Romulus		
Hammondsport	.	.	.06	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.73
Ithaca56		
Average	0.03	0.11	0.14	0.03	T.	T.	0.04	T.	T.	T.	0.35	0.07	T.	T.	0.03	0.30	0.18	0.50	0.07	0.07	0.24	0.30	0.03	0.02	T.	T.	T.	0.00	0.01	T.	2.55	

* Amount included in next measurement. † Not used in computing the averages. ¶ Record for the month incomplete. || Reports too late to be used in computing the averages.

TEMPERATURE AND RAIN FALL STATISTICS—JUNE.

TEMPERATURE—(DEGREES FAH.)

STATION.	COUNTY.	Normal for the Month of June.	Length of Record—Years:	Record Begins . . .	Record Ends . . .	Mean for June, 1891 . . .	Departure from the Normal.	Extremes of Monthly Mean Temperature for June.		
								Highest . . .	Year . . .	Lowest . . .
Western Plateau		65.4	10	1854	1890	67.1	+1.3	71.1	1856	60.8
*Angelica	Allegany	64.6	10	1854	1891	66.1	+1.3	67.7	1890	61.3
Humphrey	Cattaraugus	64.8	9	1883	1891	68.1	+1.3	—	—	—
*Elmira	Chemung	66.8	11	1852	1891	64.8	0.0	—	—	—
Eastern Plateau		63.8	—	—	—	—	—	—	—	—
Pompey	Onondaga	61.7	21	1826	1852	—	—	71.0	1828	55.5
Cooperstown	Otsego	64.0	38	1854	1891	63.6	-0.4	71.9	1870	57.3
Waverly	Tioga	65.7	10	1882	1891	66.0	+0.3	68.9	1887	62.3
Northern Plateau		59.6	—	—	—	59.4	-0.2	—	—	—
Keene Valley	Essex	59.6	7	1879	1891	59.4	-0.2	—	—	—
Coast Region		68.3	—	—	—	66.3	+0.2	—	—	—
*Brooklyn	Kings	69.3	28	1841	1873	—	—	74.0	1870	65.4
Fort Hamilton	"	68.6	33	1843	1891	68.2	-0.4	72.2	1865	64.4
New York City	New York	68.8	21	1871	1891	70.0	+1.2	71.0	1888	64.2
Fort Columbus	" "	69.5	52	1822	1874	69.4	-0.1	74.6	1825	62.3
Setauket	Suffolk	66.1	6	1886	1891	65.9	-0.2	67.8	1889	63.8
White Plains	Westchester	67.6	27	1862	1891	68.0	+0.4	71.9	1865	63.6
Hudson Valley		68.4	—	—	—	68.1	+0.2	—	—	—
Albany	Albany	68.2	18	1874	1891	68.3	+0.1	72.5	1884	65.0
*Watervliet Arsenal	"	68.6	30	1824	1854	—	—	74.7	1831	60.8
*Poughkeepsie	Dutchess	68.3	20	1828	1891	67.3	-1.0	—	—	—
West Point	Orange	69.7	60	1824	1887	—	—	74.8	1831	63.5
*Rondout	Ulster	67.2	19	1828	1869	68.6	+1.4	73.1	1831	60.1
Mohawk Valley		64.7	—	—	—	65.2	+0.5	—	—	—
*Utica	Oneida	64.7	31	1826	1891	65.2	+0.5	73.4	1828	56.0
Champlain Valley		64.7	—	—	—	64.1	-0.6	—	—	—
*Plattsburgh Barracks	Clinton	64.7	31	1839	1891	64.1	-0.6	72.4	1870	60.5
St. Lawrence Valley		65.7	—	—	—	65.6	-0.2	—	—	—
Madison Barracks	Jefferson	65.1	27	1829	1891	65.8	+0.7	72.9	1831	59.2
*Canton	St. Lawrence	66.3	29	1862	1891	64.9	-1.4	73.9	1870	61.6
North Hammond	"	67.5	14	1866	1891	66.0	-1.5	77.9	1870	63.0
*Potsdam	"	64.0	21	1828	1848	65.5	+1.5	68.9	1838	56.7
Great Lakes		65.7	—	—	—	65.5	-0.3	—	—	—
Buffalo	Erie	64.5	21	1871	1891	65.5	+1.0	67.8	1873	60.9
Rochester	Monroe	66.5	21	1871	1891	66.4	-0.1	69.8	1876	61.0
Fort Niagara	Niagara	65.1	22	1829	1867	—	—	—	—	—
Baldwinsville	Onondaga	64.2	16	1849	1867	64.0	-0.2	—	—	—
Oswego	Oswego	63.7	21	1871	1891	63.0	-0.7	68.9	1876	58.2
Palermo	"	65.3	35	1857	1887	64.8	-0.5	71.6	1870	59.4
Lyons	Wayne	64.7	6	1860	1891	66.4	+1.7	—	—	—
Palmyra	"	68.7	6	1886	1891	68.2	-0.5	70.2	1888	66.6
Erie, Pennsylvania	Erie	68.8	18	1874	1891	66.0	-2.8	71.0	1876	62.0
Central Lakes		65.9	—	—	—	66.8	+0.4	—	—	—
*Geneva	Ontario	65.2	14	1854	1891	66.5	+1.3	—	—	—
Ithaca	Tompkins	66.6	13	1879	1891	67.2	-0.6	68.9	1884	61.3

Average Departure

* The location of the instruments has been changed during the period covered by the record.

RAIN FALL—(INCHES.)

STATION.	COUNTY.	Average for the Month of June.	Length of Record, Years.	Record Begins . . .	Record Ends . . .	Total for June, 1891 . . .	Departure from the Average.	Extremes of Monthly Precipitation for June.		
								Greatest . . .	Least . . .	Year . . .
Western Plateau		4.81	8	1857	1890	5.26	+0.57	12.50	1857	2.57
Angelica	Allegany	5.05	9	1883	1891	5.95	+1.23	8.85	1889	2.14
Humphrey	Cattaraugus	4.72	9	1883	1891	5.47	-0.09	—	—	—
Elmira	Chemung	4.66	11	1852	1891	5.78	-2.48	-1.30	—	—
Eastern Plateau		4.21	38	1854	1891	4.98	-2.23	9.76	1855	0.95
Cooperstown	Otsego	3.47	7	1880	1891	4.39	-2.08	5.63	1881	1.39
Waverly	Orange	3.65	10	1882	1891	4.07	+0.42	8.31	1883	1.17
Tioga	Tioga	2.08	—	—	—	2.71	+0.03	—	—	—
Northern Plateau		2.68	7	1879	1891	2.71	+0.03	—	—	—
Keene Valley	Essex	3.42	—	—	—	3.07	-2.35	—	—	—
Coast Region		3.42	—	—	—	—	—	—	—	—
New York City	New York	3.30	21	1871	1891	3.18	-2.12	7.70	1887	1.18
Setauket	Suffolk	3.27	6	1886	1891	3.84	-1.43	6.57	1887	1.66
White Plains	Westchester	3.70	24	1854	1891	4.20	-3.50	7.99	1887	1.80
Hudson Valley		3.67	18	1874	1891	2.56	-1.16	—	—	—
Albany	Albany	3.67	18	1874	1891	2.65	-1.02	6.43	1889	1.80
Watervliet Arsenal	"	3.63	19	1836	1891	3.30	-0.33	7.08	1836	1.28
West Point	Orange	3.59	45	1840	1891	2.46	-1.13	7.37	1849	0.76
Boyd's Corners	Putnam	3.97	9	1866	1891	3.81	-2.16	5.73	1871	1.81
Rondout	Ulster	3.49	19	1830	1849	—	—	—	—	—
Mohawk Valley		4.34	—	—	—	2.60	-1.74	—	—	—
Utica	Oneida	4.34	36	1826	1891	2.60	-1.74	7.93	1830	1.52
Champlain Valley		2.77	—	—	—	1.49	-1.28	—	—	—
Plattsburgh Barracks	Clinton	2.77	30	1840	1891	1.49	-1.28	5.48	1843	1.27
St. Lawrence Valley		3.14	—	—	—	2.34	-0.80	—	—	—
Malone	Franklin	3.72	11	1830	1891	4.45	+0.73	—	—	—
Madison Barracks	Jefferson	2.58	30	1840	1891	1.94	-0.64	4.70	1843	0.88
Canton	St. Lawrence	3.33	6	1861	1891	1.46	-1.87	—	—	—
North Hammond	"	2.76	14	1866	1891	1.82	-0.94	8.74	1866	0.82
Potsdam	"	3.39	22	1828	1891	2.01	-1.29	5.03	1843	1.52
Great Lakes		3.43	—	—	—	1.37	-2.06	—	—	—
Buffalo	Erie	3.94	21	1871	1891	1.64	-2.30	6.39	1885	1.24
Rochester	Monroe	3.23	20	1871	1891	1.56	-1.67	5.36	1889	1.51
Fort Niagara	Niagara	2.35	34	1841	1891	1.19	-1.16	7.25	1842	0.28
Oswego	Oswego	3.37	21	1871	1891	1.58	-1.79	9.81	1889	1.03
Palermo	"	3.61	38	1854	1891	1.03	-2.58	8.80	1865	0.70
Lyons	Erie, Pennsylvania	4.10	18	1874	1891	1.22	-2.88	6.37	1881	2.33
Palmyra	Central Lakes	3.52	—	—	—	4.16	+0.64	—	—	—
Palermo	Geneva	3.25	22	1841	1891	3.76	+0.51	8.14	1857	0.98
Lyons	Ontario	3.79	13	1879	1891	4.56	+0.77	6.74	1889	1.35
Palmyra	Ithaca	—	—	—	—	—	—	—	—	—

Average departure

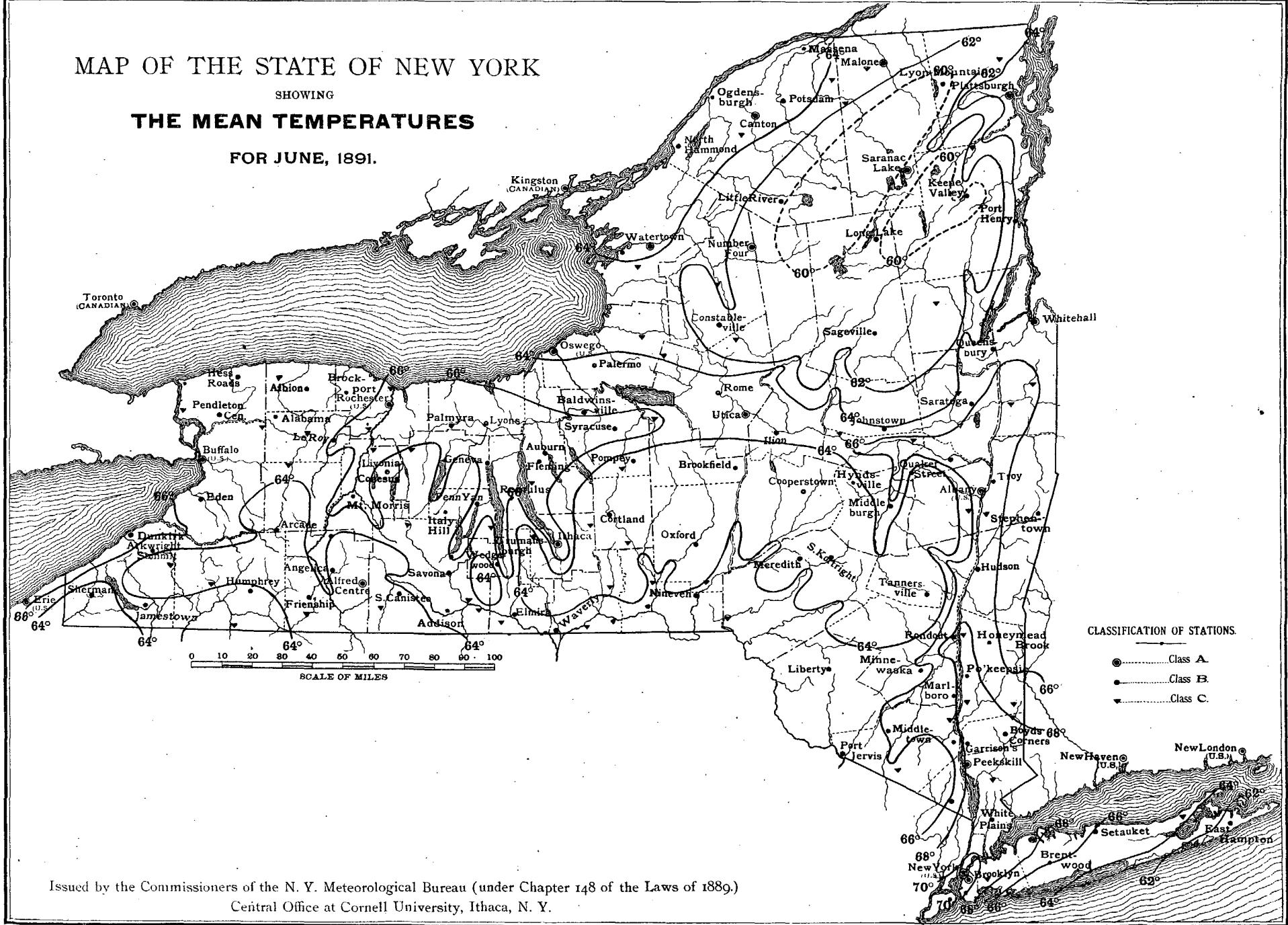
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REPORT OF THE VERIFICATION OF WEATHER AND TEMPERATURE
FORECASTS FOR JUNE, 1891.

PERSONS TO WHOM THE REPORTS ARE SENT.	STATION.	PERCENTAGE OF VERIFICATION.		
		Weather.	Tempera- ture.	Weather and Temperature Combined.
Preston & Fish	Adams	73	92	80.6
F. A. Greene	Albion	—	—	—
F. S. Place	Alfred Centre	—	—	—
James P. Mills	Ampersand	—	—	—
S. C. Suydam	Baldwinsville	69	88	76.6
E. H. Hayes	Beedes	—	—	—
H. J. Green	Brooklyn	—	—	—
L. C. Shepard	Brushton	—	—	—
C. W. Jameson	Burke	85	92	87.8
H. E. Goodspeed	Chateaugay	81	88	83.8
John Streeter	Chatham	81	61	73.0
H. A. Reynolds	Collin's Centre	88	96	91.2
Paul T. Brady	Coopers town	—	—	—
Gerity Bros.	Elmira	77	77	77.0
C. Hawley Barnes	Havana	—	—	—
C. H. Spaulding	Hess Road Station	—	—	—
A. H. Bunnell	Hornellsville	—	—	—
C. P. Bouton	Hyndsville	88	100	92.8
Cornell University and } Treman, King & Co. }	Ithaca	69.	73	70.6
F. W. Hyde	Jamestown	88	100	92.8
J. E. Kraft	Kingston	—	—	—
W. L. Grandy	Knapp's Station	—	—	—
C. W. Breed	Malone	96	77	88.4
R. R. Y. M. C. A.	Mechanicsville	85	92	87.8
F. X. Straub	Middleburgh	81	77	79.4
L. S. and J. D. Stivers	Middletown	81	38	63.8
S. P. Campbell	New Lebanon Centre	85	96	89.4
Hotel Marlborough	New York City	—	—	—
Jerome Trussell	North Lawrence	—	—	—
W. L. Grandy	North Stockholm	—	—	—
C. J. Wells	Oneida	96	100	97.6
Dr. J. N. Tilden	Peekskill	—	—	—
George W. Hickey	Plattsburgh	73	42	60.6
T. R. Anderson	Port Jervis	—	—	—
Tefft & Potter	Schuylerville	75	100	85.0
J. L. Thayer	Sherman	73	85	77.8
Cornelius Daily	Sing Sing	—	—	—
D. C. Sharpe	South Kortright	73	77	74.6
The Herald Co	Syracuse	85	100	91.0
N. D. McCutchen	Tarrytown	88	96	91.2
C. L. Adams	Trumansburg	81	77	79.4
P. A. Deyo & Son	Yonkers	85	100	91.0
Average for the State		81.5	84.3	82.6

NOTE.—The monthly percentage of verifications for weather and temperature combined of determined by multiplying the percentage of weather verifications by six and the percentage is temperature verifications by four, and dividing the sum of these products by ten.

MAP OF THE STATE OF NEW YORK
SHOWING
THE MEAN TEMPERATURES
FOR JUNE, 1891.



Issued by the Commissioners of the N. Y. Meteorological Bureau (under Chapter 148 of the Laws of 1889).
Central Office at Cornell University, Ithaca, N. Y.

MAP OF THE STATE OF NEW YORK
SHOWING
THE PRECIPITATION
FOR JUNE, 1891.

